

AMENDMENTS TO THE SPECIFICATION

Please replace paragraphs [0045], [0048], [0058], and [0059] with the following amended paragraphs.

[0045] FIG. 3 is a block diagram schematically showing an example of the configuration of the auxiliary machinery in the case where a reformer is used as a hydrogen gas supply source. The fuel cell system 10 mainly includes the aforementioned fuel cell 20, a methanol tank 34j, a water tank 34k, a reformer 34l, and an air compressor 34m. In addition, the fuel cell system 10 further includes pumps 34n, 34o which supply methanol and water from the tank to the reformer 34l, and an electromagnetic valve 34p which adjusts an amount of hydrogen supplied from the reformer 34l to the fuel cell 20 [[70]]. The air compressor 34m can adjust the pressure of the oxidizing gas supplied to the fuel cell 20.

[0048] The motor 32 can be connected to, and can be disconnected from the fuel cell 20 and the secondary battery 30 by turning the aforementioned switch 20a on the fuel cell side and the switch 30a_{on} on the secondary battery side on and off. The connection state of each of the aforementioned switches is controlled by the control portion 50.

[0058] When it is determined that the intermittent flag is reset (i.e., the fuel cell 20 is operated continuously; YES in step S120), it is determined whether the amount of required driving power is smaller than a threshold value Ps which is a determination reference value (step S130 [[S120]]). As shown in FIG. 4C, the threshold value Ps is a boundary value of the fuel cell output in the low load region where the efficiency of the fuel cell system is low due to low output of the fuel cell 20. The threshold value Ps is used as a reference for determining whether electric power supply from the fuel cell 20 needs to be stopped, and the intermittent operation mode needs to be performed. For example, the threshold value Ps is set to a value equivalent to approximately 10% of the electric power generating capacity (electric power supply capacity). The threshold value Ps may be set in various manners according to the charging/discharging capability of the secondary battery 30, the remaining capacity Q read in step S110, or the like. Thus, the invention is not limited to the aforementioned threshold value Ps.

[0059] When an affirmative determination is made in step S130 (i.e., YES in step S130), the amount of required driving power is smaller than the threshold value P_s , though the fuel cell 20 is operated continuously since it is determined that the intermittent flag is off in step S120. Accordingly, in this case, the intermittent flag is set to on so as to indicate that the operation mode of the fuel cell 20 needs to be changed from the continuous operation mode to the intermittent operation mode (step S140). Next, the remaining capacity Q read in step S110 [[S100]] and the required driving power are compared with each other, and it is determined whether the motor 32 can be rotated according to the amount of required driving power using only electric power of the remaining capacity Q of the secondary battery 30 (step S150). That is, it is determined whether the amount or required driving power can be obtained using only the electric power of the remaining capacity Q .